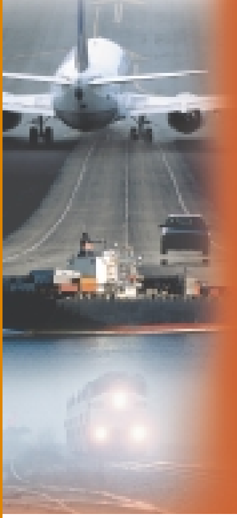


ATSB Australian Transport Safety Bureau

Air Safety Investigations

Recently completed investigations

As reports into aviation safety occurrences are finalised they are made publicly available through the ATSB website at www.atsb.gov.au

Fixed-wing Aircraft

Occ. no.	Occ. date	Location	Aircraft	Short description
199804715	30 Oct. 1998	4 km S Gumadeer NT	Cessna 210M	Emergency landing following engine power loss
199900252	27 Jan. 1999	9 km N Moorabbin Vic.	Piper Lance	Emergency landing following engine power loss
199902014	23 Apr. 1999	Mt Isa Qld	Saab 340 and Saab 340	Flight Service communication during high workload period
199902600	01 Jun. 1999	87 km NW Tindal NT	Embraer Brasilia	In-flight engine failure
199903327	04 Jul. 1999	Norfolk Island	Fokker F100	Loss of wheel during landing
199903333	10 Jul. 1999	Avalon Vic.	Eagle 150B	Accident during formation-flying practice for airshow
199903590	27 Jul. 1999	37 km SE Maroochydore Qld	Boeing 737 and Boeing 737	Infringement of separation standards
199904317	10 Sep. 1999	Williamtown NSW	Beech 1900D	Engine fire during taxi after landing
199904802	09 Oct. 1999	Norfolk Island	Fokker F100	Main landing gear torque failure
200000176	21 Jan. 2000	241 km E Darwin NT	BAe 146	Landing with one engine inoperative
200001335	19 Apr. 2000	52 km W Cairns Qld	Embraer Bandeirante	Fire warning and inflight engine shutdown
200001657	10 May 2000	1 km S Cowra NSW	Fairchild Metroliner	Hydraulic failure leads to flapless landing
200002836	06 Jul. 2000	Sydney NSW		Loss of electrical power to Sydney Terminal Control Unit
200003857	06 Sep. 2000	489 km ESE Singapore Jatcc	Boeing 767	Smoke, fumes on flightdeck
200004882	13 Oct. 2000	4 km N Sydney NSW	Boeing 737 and Kawasaki BK117	Airborne confliction
200005640	28 Nov. 2000	41 km SW Adelaide SA	Piper PA-31	Door opened in flight
200006277	20 Dec. 2000	Meekatharra WA	Cessna Conquest	Break in trim wheel affects takeoff

Helicopters

Occ. no.	Occ. date	Location	Aircraft	Short description
199905026	24 Oct. 1999	Binnu WA	Robinson R22	Wire strike during landing
200100443	29 Jan. 2001	8 km W Sarina Qld	Bell Longranger	Wire strike, ground impact and fire

For more occurrence reports and safety information

visit us at www.atsb.gov.au

Safety briefs

Wheel missing on landing

Occurrence Report 199903327

During the landing roll at Norfolk Island on 4 July 1999, the crew of a Fokker F100 experienced a severe vibration from the left main landing gear as the brakes were applied. Subsequent inspection revealed that the left main outboard wheel had separated from the landing gear assembly during the landing roll.

ATSB materials failure engineers examined the wheel and found that it had failed because of fatigue cracking in the wheel hub.

The hub had been repaired during the last overhaul and the repaired surface was significantly different from the manufactured condition of the hub. A lower intensity process of shot peening (a process of improving fatigue resistance) was used, which lowered the resistance of the wheel to fatigue cracking.

The crew reported that high crosswinds are regularly experienced during take off and landing at Norfolk Island which induce sideways flexing of the wheel web and increased the likelihood of fatigue failure. The investigation revealed that during the last overhaul the left main landing gear shimmy damper had been incorrectly re-assembled.

On 9 October 1999, this aircraft had a similar incident involving the failure of the left main landing gear upper torque link while landing at Norfolk Island (ATSB Air Safety Occurrence Report 199904802). The ATSB engineering report found that the torque link failure had started in similar circumstances to those for the wheel hub failure.

These incidents highlight the need to follow maintenance repair and overhaul procedures accurately. ATSB recommended that UK CAA review the repair and overhaul processes for failed wheels and failed torque links to ensure they conform to appropriate airworthiness requirements. ■

Blackout at Sydney tower

Occurrence Brief 200002836

During a routine inspection of the Sydney Terminal Control Unit (TCU) Uninterruptible Power Supply (UPS), an unexplained power loss plunged the Sydney Terminal Control Unit into partial darkness and the Air Traffic Control (ATC) workstations went blank.

Although the power loss only lasted 14 seconds this caused TCU Air Traffic Control (ATC) workstations, software switching of voice communications channels, satellite communications, provision of the Sydney Terminal Approach Radar to Melbourne and Brisbane and operational room lighting, to fail.

Air traffic controllers in the TCU were unable to determine the relative positions of aircraft under their jurisdiction. By using the emergency bypass air/ground radio, controllers were able to direct flight crews to keep a visual lookout for aircraft and to turn on their Traffic Alert and Collision Avoidance System (TCAS). Melbourne and Brisbane TAAATS centres also provided radar services and other support. There were no infringements of separation standards.

The ATSB has made six recommendations - on training of technical officers, on separation assurance, the role and tasks of electrical officers and a review of instructions for the maintenance and testing of the UPS to the Sydney TCU equipment. ■

C210 cylinder head cracking

Occurrence Report 199804715

The pilot and three of the five passengers on a charter flight in a Cessna 210M sustained serious injuries on 30 October 1998 during a forced landing following a rough running engine and sudden loss of power.

The pilot landed the aircraft in a cleared gravel pit. During the landing roll, the aircraft was substantially damaged when it collided with several large mounds of gravel. The engine had separated from the airframe as a result of the collision and came to rest inverted in front of the wreckage.

The Cessna 210M was fitted with a Teledyne-Continental IO-520-L engine that had completed approximately 734.5 hours since being overhauled on 18 August 1997. On 14 October 1998, the engine was subjected to, and passed, a cylinder pressure leak check during routine maintenance.

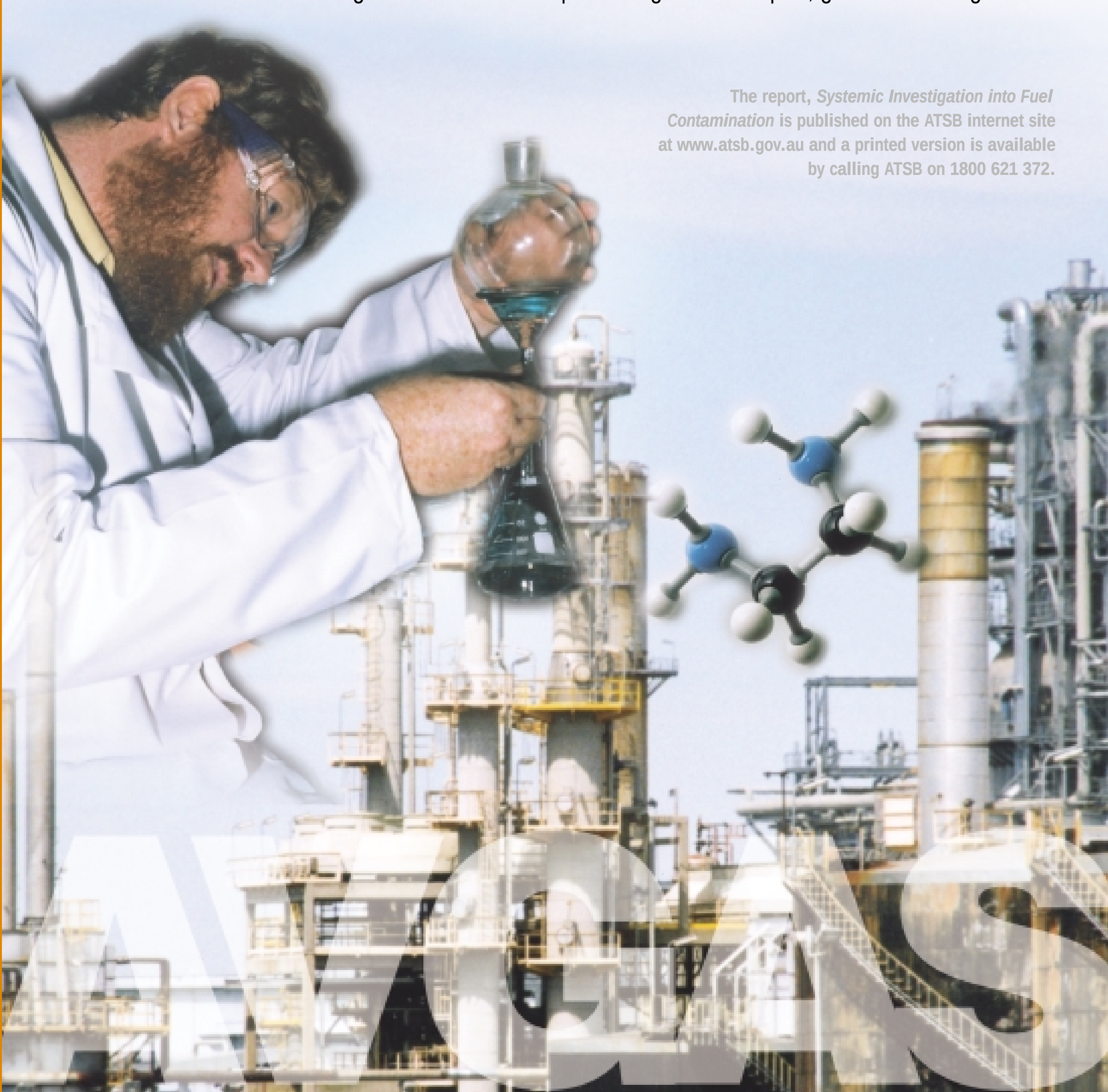
An examination of the engine revealed a large crack in the number one cylinder head. A detailed metallurgical examination of the crack surfaces revealed that the cylinder head had failed as a result of fatigue cracking due to overheating. The outer surface of the number one cylinder head revealed that the painted area, particularly at the start of the crack, had discoloured. The type of paint discolouration suggests that this region of the cylinder head had been subjected to higher than normal temperatures.

This occurrence was a result of the failure of the number one cylinder through fatigue cracking. The ATSB issued the following safety advisory notice to CASA.

'The Civil Aviation Safety Authority should note the safety deficiency identified during this investigation and consider introducing methods to identify and record time in service of piston engine cylinder heads particularly for those cylinder heads utilised in passenger carrying operations'. ■

Why investigate fuel?

The Avgas contamination event that happened over Christmas 1999 caught everyone by surprise. It had not been seriously considered as a potential hazard to aviation anywhere in the world, therefore the consequences had not been considered. The reasons behind why the fuel became contaminated were unexpected. **Mike Watson**, one of a team of transport safety investigators who had the task of sifting though an overwhelming amount of data and publishing the final report, gives some insight.



The report, *Systemic Investigation into Fuel Contamination* is published on the ATSB internet site at www.atsb.gov.au and a printed version is available by calling ATSB on 1800 621 372.

No one was hurt as a result of contaminated aviation fuel, and there were no accidents that could be attributed to a loss of power caused by fuel contamination. At the time of the crisis the fuel refiner responded immediately and recalled all Avgas that had been manufactured at the refinery, and CASA grounded all Avgas powered aircraft that could have been contaminated until it was known that they were safe to fly.

The chemical contaminant is now known to have been ethylene diamine. At the time of the event, there was a concerted effort to define what the contaminant was (concentration in the Avgas was low); how the contaminant had got there; and what the contaminant's behaviour would be in an aircraft fuel system.

In the initial response a method to guarantee aircraft would be safe again was developed, and a testing process to detect ethylene diamine was also developed in a number of weeks. Components for the test kits were sourced from all over the world.

The ATSB's investigation looked at what had happened. It looked at what could have prevented it from happening and why it didn't. It also looked at lessons that could be learnt and applied to other aviation systems. This included what would have happened if a similar contamination event occurred in a large turbine-engine passenger aircraft operating with contaminated jet fuel.

The main defence against any safety-critical system failure in an airliner is to have backup, or redundant, systems for any system that is essential for safe flight. The problem with fuel storage and supply systems in an aircraft is that they simply don't have a redundant backup. If fuel is contaminated, the contaminant will be supplied to all an aircraft's engines at the same time, and could make them all unreliable at the same time.

As the primary defence of a redundant system isn't available to protect against the safety critical problem of fuel quality, we could reasonably expect there to have been a number of fuel quality related accidents in the recent past; however that was not so. This can only be attributed to a highly reliable system for manufacture and distribution of aviation fuels, with a well-managed quality control processes.

Despite this, it is clear that complacency on the part of any group that has a responsibility towards maintaining fuel quality, be they refiner, distributor, regulator or consumer, can have catastrophic consequences.

This Avgas contamination event must be seen as a clarion call to highlight an aspect of the system of safe aviation that is more vulnerable to abuse or neglect than most other safety critical aviation systems.

Avgas contamination investigation report released

The Australian Transport Safety Bureau (ATSB) released its report on the contaminated aviation gasoline (Avgas) investigation at a media conference on 30 March 2001. The investigation followed the grounding in January 2000 of thousands of piston engine aircraft across eastern Australia when a black 'gunk' was found in fuel systems.

The investigation found that a very small amount of an anti-corrosion chemical that was not removed in Mobil's Avgas refining process in late 1999, and not detected by the usual tests, led to the safety problem.

The ATSB made 24 separate recommendations as a result of its investigation that included recommended safety actions for Mobil Oil Australia, US and UK fuel standards bodies, the Civil Aviation Safety Authority, and other Australian regulatory organisations.

ATSB Executive Director Kym Bills told the media that the scale of the Avgas contamination was an unprecedented event anywhere in the world and was unexpected in such a mature industry as fuel refining. As a result, it caught the refiner and regulators by surprise and also revealed deficiencies in international fuel standards.

KYM BILLS, ATSB EXECUTIVE DIRECTOR ADDRESSES THE MEDIA

The investigation found that a temporary variation in the production process at Mobil's Altona refinery in late 1999 involving problems with reduced caustic wash and increased acid carry over, led to an increased dosage of an alkaline anti-corrosion chemical by a contractor. This was not totally removed from the final Avgas. The normal tests for the quality of Avgas did not pick up the very small concentration of the chemical contaminant in the Avgas that was sufficient to react with brass in aircraft fuel systems and form a black 'gunk' that clogged them.

Mr Bills said it was not the ATSB's role to ascribe 'blame' to any party. The task was to uncover the facts including all of the significant contributory factors (including weaknesses in defences), and then to publish findings and recommendations in a report.

Accordingly, it was important that relevant parties learnt from the identified safety deficiencies and acted promptly on the 24 recommendations made to reduce the chances of a recurrence, either with Avgas or jet fuel.

Behind the investigation

The final report of the accident involving Qantas B747-400 VH-OJH at Bangkok, Thailand on 23 September 1999 concluded our most important investigation of an accident involving an Australian registered jet aircraft.

The investigation was one of the most comprehensive and exhaustive ever conducted by the ATSB (or its predecessor the BASI).

Investigator In Charge, Mike Cavanagh, reports on the investigation itself.

The report, *Boeing 747-438, VH-OJH Bangkok, Thailand* is published on the ATSB internet site at www.atsb.gov.au and a printed version is available by calling ATSB on 1800 621 372.

THE Australian Transport Safety Bureau released its report on the Qantas B747-400 runway overrun accident at Bangkok International Airport on 23 September 1999 on 25 April 2001.

The accident occurred when the B747-400 landed well beyond the normal touchdown zone and then aquaplaned on a runway that was affected by water following very heavy rain. The crew omitted to use either full or idle reverse thrust during the landing. The aircraft was still moving at 88 kts (163 km/h) at the end of the runway and stopped 220 m later in soft turf with its nose on the airport perimeter road. A precautionary evacuation was made using emergency escape slides about 20 minutes later.

Although the flight crew and cabin crew made a number of errors, many of these were linked to deficiencies in the Qantas operational procedures, training and management processes. CASA's regulations covering contaminated runways and emergency procedures were also found to be deficient, as was its surveillance of airline flight operations. Qantas and CASA either have made, or are in the process of making, significant changes in the areas where deficiencies were identified including the development by CASA of a systems-based surveillance audit approach.

The on-site phase

As the accident occurred in Thailand, responsibility for conducting the investigation fell to Thailand in accordance with Annex 13 to the International Civil Aviation Convention. As the State of registry, Australia had the right to appoint an Accredited Representative to the investigation. On the day following the accident, a team of four ATSB investigators travelled to Bangkok with the Qantas incident response team. Thai agreement to the Australian nominated Accredited Representative was received enroute.

A series of meetings was held with the Aircraft Accident Investigation Committee of Thailand over the next few days. The Committee took possession of the cockpit voice and flight data recorders, examined the aircraft, and interviewed the flight crew.

Runway 21L was closed because of the position of the aircraft in the overrun area. It was necessary to reopen the runway as soon as possible so that normal operations could resume. To facilitate this, the Committee handed custody of the aircraft back to Qantas so that recovery of the aircraft could begin. By that time, aircraft recovery experts from Boeing had arrived.

The first step in the recovery involved stabilising the aircraft to prevent further movement in the very wet, muddy soil. The landing gear was removed and a gravel road sloping down from the end of the stopway to below ground level beneath the aircraft was then constructed. New landing gear was fitted and the aircraft lowered on to the road. It was then towed backwards on to the runway. The recovery process took about seven days to complete.

In the meantime, the Committee delegated investigation of the cabin safety aspects of the occurrence to the ATSB. That enabled the ATSB investigators to conduct a detailed examination of the aircraft cabin and to speak to local sources regarding post-accident events.

The Committee retained control of other aspects of the investigation and asked the ATSB to conduct readouts of the flight recorders under the Committee's supervision. Four Thai investigators attended the ATSB's Canberra facility in October 1999 and supervised the readouts. On 18 November 1999, the Committee delegated the complete investigation to the ATSB. The ATSB accepted the delegation and agreed to provide the draft report to the Committee for review in accordance with Annex 13 clause 6.9 before public release.

The investigation process

In common with widely accepted international practice, the ATSB formed an investigation team consisting of a number of groups – aircraft operations, flight recorders, engineering, cabin safety, and organisational issues – each under the control of an ATSB investigator reporting to the Accredited Representative who acted as investigator in charge.

The function of the groups was to collect all factual information that was relevant to the group's area of investigation. As standard practice, organisations with a direct interest in the investigation (such as Qantas, Boeing, CASA, and the flight and cabin crew industrial organisations) were invited to nominate relevant experts to the groups. In some cases, the expertise and resources available within the ATSB were not sufficient for the level and volume of information required. This meant that assistance from outside organisations was requested – both as participation in a group or providing specific information to the group.

Qantas provided a very high level of cooperation and substantial expert assistance and advice regarding all facets of the investigation, especially in the areas of aircraft operations, engineering and cabin safety. This level of assistance made a major contribution to the safety benefits achieved by the investigation.

Ready for towing onto the runway

" It concluded one of the most detailed world-wide investigations of a non-fatal large passenger aircraft accident. "

From an initial assessment of the accident and post accident events, a logical approach to the investigation seemed to be to break the task into two segments and these were:

1. The accident flight (ie. the approach and landing) to determine the issues relating to the flight itself that led to the overrun. Aspects to be examined included:
   - weather
   - air traffic control
   - aerodrome/runway
   - crew performance
   - aircraft systems
   - aircraft performance in the air and on the runway
   - crew procedures and training.
2. Post accident events (ie. from the time the aircraft touched down until the precautionary disembarkation was complete) to determine any passenger or crew safety issues. Aspects to be examined included:
   - cabin damage
   - aircraft emergency escape and communications systems
   - flight and cabin crew performance
   - flight and cabin crew procedures and training
   - airport emergency response
   - the evacuation process.

As these tasks progressed and the picture of events emerged, it was possible to identify areas where deficiencies might have existed. These areas then became the subject of closer and more detailed examination. Eventually, this enabled conclusions to be drawn regarding the active failures that occurred.

The next step was to look at the systems behind the active failures to see if any deficiencies existed that might have 'set the scene', for the active failures to have occurred. The sorts of things to be examined here included how various procedures and training programs were developed and how possible hazards were identified and risks assessed. This examination centred on Qantas and CASA.

It should be noted that the investigation groups were not involved in collecting and assessing all of the factual information. Certain types of information, such as the cockpit voice recorder, had restricted access. The organisational factors group was composed only of ATSB personnel. The analysis of the factual information was undertaken solely by ATSB investigators.

By July 2000, more than 45 files (each containing 200 documents), more than 500 photographs, and over 1100 emails of information had been collected. The next step was to draft the investigation report.

Since September 1999, three ATSB investigators had been working full-time on the investigation. A number of other investigators assisted at various stages. In total, the investigation involved six ATSB investigators.

The report and review process

Writing the report was a challenging and difficult task. It was important for the document to be reader friendly, but at the same time contain enough information to justify the conclusions of the investigation. It was felt that the recommended ICAO format for accident reports was not appropriate because of the many issues involved and their complexity. The structure settled upon involved dividing the report into a number of parts, each part covering a particular aspect and, in effect, being a report within a report.

By mid-October 2000, the draft had been completed. An extensive interested party review took place to ensure factual accuracy and natural justice. A final draft was sent to the Accident Investigation Committee of Thailand on 12 February 2001.

On April 2001 the Chairman of the Committee, Air Chief Marshal Kongsak Variana, advised ATSB's Executive director that the Committee had considered the draft report and agreed without amendment. It concluded one of the most detailed world-wide investigations of a non-fatal large passenger aircraft accident.

Confidential Aviation Incident Reporting

THE Confidential Aviation Incident Reporting (CAIR) system helps to identify and rectify aviation safety deficiencies. It also performs a safety education function so that people can learn from the experiences of others. The reporter's identity always remains confidential. To make a report, or discuss an issue you think is relevant, please call me on 1800 020 505 or complete a CAIR form, which is also available from the Internet at www.atsb.gov.au

Chris Sullivan
Manager CAIR

CAIR reports

Position reporting on congested frequencies (CAIR200004973)

About 20 per cent of aircraft on 124.55MHz and/or 125.8MHz coupled frequencies appear to be using radio-arranged separation techniques. With 20 per cent constantly giving position reports, what are the other 80 per cent supposed to do? Safety is reduced for the 80 per cent as pilots concentrate their visual scan to the 20 per cent giving reports.

CASA should communicate to pilots what the correct procedure is – ie constantly giving position reports or using see-and-avoid techniques.

Response from CASA: CASA believes that it may be true that a small number of pilots using Class G airspace cause concern. However, clearly this [report] may have been generated by a CAIR report submitted by an Air Traffic Controller where there is the problem of the use of the frequency no longer being under their control. Many controllers have this concern.

It becomes important when the VFR chatter affects the ability of the ATC to pass clearances and traffic information to IFR aircraft in the airspace – required and expected in Australian G space but a unique Australian use of Class G.

CASA is considering strengthening the education campaign suggesting that VFR pilots do not make position broadcasts in Class G airspace but to listen and only respond when they hear IFR aircraft, which may pop out of cloud in their vicinity.

Kruger flap sill doors missing

(CAIR 200003240)

A B737 [aircraft registration] *has been flying since* [date] *with the Kruger flap sill doors missing from both wings. The defect is listed on the CDL (configuration deviation list). As a result, performance limitations are applied to the aircraft as follows:*

- *Field length reduction of 185m*
- *Performance limited take-off weight of 3180kg*
- *Vr and V2 increased by one knot.*

As of today, [aircraft registration] *also has the same problem. The parts only take one day to acquire from* [manufacturer] *but the company appears to have little interest in resolving the problems.*

Response from airline: The parts were ordered for both aircraft on [date] and were due to arrive on [date] in the meantime a component repair solution is being addressed. We are unable to source the parts in the time suggested by your scribe.

CAIR note: The parts were ordered by the airline after receipt of the CAIR report.

TAAATS alert function not enabled (CAIR 20003371)

A Beech Super King Air was maintaining 7000 feet being vectored for an ILS approach to runway 35, [airport]. *The controller asked the pilot if the aircraft was fitted with GPWS* [ground proximity warning system] *and the pilot replied in the negative. The controller told the pilot to expect an intercept of the ILS at 5000 feet and the pilot read back the altitude only. Neither the controller nor his training officer queried the pilot's readback.*

The controller then had his attention diverted to another traffic situation. The pilot of the King Air asked for confirmation that he was cleared to descend to 5000 feet. The controller turned his attention back to the King Air and noticed that the aircraft's Mode C indicated its altitude as 5500 feet while it was within an area where the radar terrain LSALT was 6500 feet. The controller instructed the pilot to climb to 6500 feet immediately, and the pilot replied that he was 'visual'. The aircraft was then cleared for further descent and approach.

The controller expressed the view that, if the Cleared Level Adherence Monitor (CLAM) function in TAAATS had been enabled, this error would have been detected much earlier. At the time of reporting, the CLAM function was disabled throughout the system.

Response from Airservices Australia: Inhibition of the Cleared Level Adherence Monitoring (CLAM) was introduced throughout the TAAATS System on 6 May 1999 due to numerous false alerts. CLAMS were re-activated within Melbourne Centre on 10 August 2000 however it became necessary on the same day to inhibit CLAMS again within [airport] Terminal Area due numerous apparently false alarms causing serious distractions to controllers. It is intended that CLAM alerts will be switched on again for the [airport] Terminal area on a trial basis once the instances of false alerts in other areas have been evaluated.

One of the causes for the proliferation of CLAM alarms around [airport] is the terrain associated CTA Steps. Aircraft descending into [airport], particularly from the southwest, tend to fly close to the CTA base in order to

A CAIR form can be obtained from the ATSB website @ www.atsb.gov.au or by telephoning 1800 020 505.

maintain vertical profile, often levelling out at each step. If an aircraft, on being assigned the next lower level, transitions from level flight to a high rate of descent in order to regain profile, it may cause the system to predict that the aircraft may not level off at the assigned altitude. The result is a CLAM alert.

In the event reported it is considered that the controller used poor technique in advising the pilot to expect an intercept of the ILS at 5000 feet without including a positive affirmation of the current cleared level (7000 feet). It was not possible to further pursue the failure of both the controller and the training officer to query the incorrect level readback given the anonymous nature of the report. Nor was it possible to determine why it took so long for the controller to notice that the aircraft had descended well below the assigned altitude.

CAIR note: At the time of drafting this article for publication, the CLAM function was fully operational within the TAAATS radar group responsible for [airport].

Poor visibility in the circuit

(CAIR 200003427)

While flying a circuit on runway 04R at [secondary airport], *I noticed that visibility late on the downwind leg had deteriorated very quickly due to a rain shower. I lost sight of the preceding aircraft and subsequently turned onto base leg in front of the aircraft that I was supposed to be following. The tower controller observed this and instructed me to go around, which I did.*

The visibility deteriorated further and I had difficulty sighting the runway. I completed the go-around and the circuit and landed normally, but it was difficult to see the runway while flying the final approach leg.

The lesson that I learned from this was that in conditions of poor visibility, the visibility in the air can be worse than the visibility on the ground, and not to carry out circuit training when visibility is marginal.

Bankstown LOE near mid-air collision

(CAIR 200003573)

I was tracking down the southbound Bankstown lane of entry (LOE). I was at 2000 feet at Brooklyn Bridge but allowed the aircraft to slowly descend such that I was at 1800 feet just north of the Dural strobe. My attention was diverted to the right while pointing out something to my front seat passenger. At that point a rear seat passenger drew my attention to an aircraft approaching from 11 o'clock about 150-200 feet above me. At that point, and given the closing speed, avoiding action was impossible. The conflicting aircraft was a white twin, but the incident happened so quickly that I had no time to further identify the other aircraft. Had I maintained 2000 feet as is my normal practice, instead of 1800 feet, there would almost certainly have been a collision. The twin's heading was such that it would have flown well to the west of Brooklyn Bridge if it maintained its course.

The northbound and southbound tracks for negotiating the LOE are clearly marked on the VTC but some pilots seem to ignore this. This aircraft was tracking north up the southbound side of the LOE and in doing so came very close to killing my passengers and me.

Gold coast near mid-air collision

(CAIR 200004816)

The reporter was flying his aircraft south within the Southport MBZ at 1,000 feet in accordance with the caution notice on the Coolangatta VTC. At about Jupiters Casino, the reporter turned northbound and descended to 500 feet. Appropriate calls were made on the MBZ frequency of 119.00MHz. At about the abeam Seaworld position, the reporter narrowly missed an [other aircraft] *that was flying south at 500 feet.*

Although the pilot of the [other aircraft] *had made an MBZ call earlier, when the reporter tried to call the pilot to ask why he was flying his aircraft at a level not recommended on the VTC, the* [other aircraft] *pilot allegedly ignored him.*

CAIR note: The CAIR office contacted the operator of the other aircraft. The pilot explained that he was positioning his aircraft for landing and that transmissions made from his open cockpit were hard for other pilots to understand.

Blinded by the T-VASIS

(CAIR 200005126)

First report: *At 3:30pm a 'Runway Light' advice notice was placed at the Manual Lightswitch Box. The notice indicated - Runway lights on, T-VASIS to Night Intensity.*

We made a visual approach but conducted a VOR/DME 32 for practice. Visually checked runway lights on approaching field. Observed T-VASIS on DAY Intensity when aircraft on final.

Suggestion: [Major airline] *personnel to ensure they return T-VASIS to NIGHT strength after their jet has departed. This incident has occurred several times this year alone, regardless of our use of the 'Runway Light' advice notice (which appears to be ignored).*

Second Report: [Major airline] *airport staff are failing to return the T-VASIS lights to NIGHT intensity after departure of their afternoon scheduled flight. This is a situation that has continued for some time. We, the* [aviation company] *pilots, routinely for our evening scheduled flights, manually select the runway lights to "ON" and select the VASIS lights to "NIGHT" intensity.*

We fastened a signed and dated typed note adjacent to the switches in the Runway Lights control box, stating that we require the runway lights left "ON", the T-VASIS lights selected to "NIGHT" intensity and our estimated time of return.

Despite numerous individual approaches to the local [major airline] *management, regarding the dangers when approaching and landing into these very bright lights, including the Airport Manager, both verbally and in writing about this matter, and finally having our Perth based management contact them about this problem, there has apparently been no attempt by local management to ensure a solution to their staff negligence.*

[Regional location] *based* [major airline] *management have, in my opinion, been given every reasonable opportunity to ensure their staff return the T-VASIS lights from DAY to NIGHT intensity when requested, and so we now seek your support for a solution to this serious matter.*

CAIR note: This matter was discussed with the safety department of the airline concerned. While there has been some occasions where the T-VASIS was left selected to the incorrect setting, those occasions were infrequent and as a result of human error. Notwithstanding the "in house" agreement by airline staff to manage the T-VASIS selection, the more appropriate authority for the management of the airfield lighting is the aerodrome operator.

Response from aerodrome operator: Please be advised that the T-VASIS has now been connected to a photo electric cell which switches from day to night intensity and the whole system can now be turned on by the use of the PAL system on 119.6Mhz.

Final adjustments are being made today [date] to perfect the system. I will advise changes to ERSA and issue a NOTAM to this effect. I trust that this will solve the problem. ■

ATSB is part of the Commonwealth Department of Transport & Regional Services